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# Valency alternations between inflection and derivation

## A contrastive analysis of Italian and German

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Valency alternations are usually treated either as a lexical phenomenon resulting from the manipulation of the argument structure of a verb or as a context-conditioned variation resulting from the insertion of a verb into a certain syntactic configuration or construction. In the paper, the attempt is made to give support to the lexical view by discussing valency alternations along the inflectional / derivational continuum. In particular, the contrastive analysis of Italian and German valency alternations shows that several different types can be observed which range from patterns clearly belonging to the inflectional pole such as the passive, the resultative and the reflexive to patterns of a lexical nature which can be treated on a par with their corresponding derivational analogues. Accordingly, valency alternations can be arguably considered as a type of conversion – i.e. as a process of lexeme formation – with a basically modifying value in which the base undergoes a sub-classification in hyponymic terms.

### 1. Introduction

As is well-known, a vexed question in theoretical morphology concerns the distinction between inflection and derivation (see Štekauer 2015 for a recent survey). The relevance of this issue is such that it cross-cuts more in general the distinction between morphology and syntax. At least three different approaches have been suggested: an entirely Morphological view whereby both inflection and derivation are taken to belong to morphology because they share the same basic coding strategies (cf. Dressler 1989; Booij 1993; Bauer 2004); a Split-Morphological view in which inflection and derivation are assigned respectively to the different models of syntax and morphology (or of lexical morphology) because they serve two different functional domains (cf. Anderson 1992; Beard 1995); and finally a

Distributed-Morphological view in which there is no principled distinction between syntax and morphology and most operations obey general, i.e. essentially syntactic, principles (cf. Halle & Marantz 1993; Harley 2015).

Also studies on argument structure and valency changes have been shown to follow two different approaches (cf. Levin & Rappaport Hovav 2005: 191): in the Lexical or 'Projectionist' approach, any verb is provided with its own argument structure and valency changes are accounted for by means of lexical (and possibly morphological) changes. In contrast, in the so-called 'Constructionist' and 'Neo-Constructionist' views (cf. respectively Goldberg 2013 and Borer 2013: 51) the verbs receive their argument structure when they are inserted either into an autonomous construction or into syntactic trees which contain pre-specified argument blocks responding to certain universal well-formedness conditions on configurationality. Clearly, in this view, valency changes are accounted for in purely syntactic terms either by adapting the verbs to (partially) pre-specified constructional patterns or by manipulating the syntactic trees in which they are placed with the help of movement rules, vP-insertions, etc. (cf. Müller and Wechsler 2014 for a critical survey).

As can be gathered from this rough picture, in both research fields the opinions diverge as to the role that has to be attributed to the lexicon (and to lexical morphology) and to syntax. The most radical view attributes everything to syntax: accordingly, no specific principles are needed either for dealing with derivationally and inflectionally complex words or for accounting for valency changes in verbs. The model of Distributed Morphology is a good candidate for representing quite closely this view. In this paper, I will try to defend the radically opposite view, namely that valency changes are to be treated entirely by means of morphological operations, which can be either of inflectional or of derivational nature. This is valid also for the so-called valency alternations, namely valency changes in the absence of any explicit marker which will be analyzed as conversions. The paper is structured as follows: §2 generally discusses the issue of the inflection / derivation continuum; §3 focuses on valency changes as they are commonly attested cross-linguistically and §4 discusses the peculiar status of valency alternations; §5 raises the question of the theoretical status of valency alternations from the perspective of their inflectional or derivational value taking into consideration their lexemic status; §6 investigates in a contrastive way the valency alternations in Italian and German showing parallels and differences. The final §7 summarizes the results and draws the conclusion.

## 2. The inflection / derivation continuum

The standard handbook definition<sup>1</sup> of Inflectional Morphology (= IM), namely “what is relevant for syntax”, emphasizes its “grammatical” function insofar as it focuses on the implementation of abstract syntactic structures, which consists in providing word forms to fill in syntactic slots. In other words, IM concretely realizes the grammatical machinery. As it has often been objected, this definition is quite unsatisfactory because it does not make clear what has really to be considered relevant for syntax. In this regard, only what Booij (1996) has called contextual IM is strictly relevant for syntax because it is largely or entirely context-determined, such as for instance case for nouns or person for verbs. In contrast, inherent IM such as number for nouns is only indirectly relevant for syntax, as it is not context-determined though it influences contextual IM via agreement for instance of adjectives and verbs. Notice that the effects of nominal number are not essentially different from those brought about by a fairly common instance of Derivational Morphology (= DM) like action nouns which force agreement on adjectives and verbs but are not context-determined. On the other hand, another common instance of DM like agent nouns might be claimed to be context-determined given their participial function of adapting a verb into a noun phrase found for instance in the Latin examples in (1a–c) in which the agent nouns *victor* / *victrix* ‘winner (masc.) / (fem.)’ based on *vinco* ‘to win’ agree with the nominal head in gender, number and case exactly like any participle (cf. Gaeta 2010a for a discussion):

- (1) a. *animus libidinis et divitiarum victor* (Sall., J. 63, 2)  
 spirit[M].NOM lust.GEN and riches.GEN winner.M.NOM  
 ‘a spirit superior to pleasure and riches’
- b. *mater ... victrix filiae non*  
 mother[F].NOM winner.F.NOM daughter.GEN not  
*libidinis* (Cic., Clu. 14)  
 lust.GEN  
 ‘the mother ... victorious over her daughter, not over her lust’
- c. *victricia-que arma* (Verg., Aen. 3, 54)  
 winners.N.ACC-and weapons[N].ACC  
 ‘and victorious weapons’

1. A recent critical review of the criteria distinguishing inflectional from derivational morphology can be found in Štekauer (2015), to which I refer for a more comprehensive picture.

- d. *victores, victis hostibus, legiones*  
 winners.M.NOM won.M.PL.ABL enemies[M].ABL legions[F].NOM  
*reveniunt domum* (Pl., *Am.* 188)  
 come.back home.ACC  
 ‘after the victory, defeated the enemies, the legions come back home’

Notice in particular the neuter form *victricia* in (1c) which can be referred neither to the masculine *victor* nor to the feminine *victrix* and only results from the contextual agreement with the head noun. However, in contrast with true participles agreement is not strictly speaking obligatory, as shown by the example (1d), in which the feminine head *legio* does not force the occurrence of the feminine *victrix*. In other words, Latin agent nouns qualify for unprototypical representatives of DM, as will be argued below. These problems render the concrete implementation of a theoretical approach such as the Split Morphology framework difficult in operational terms, because it is not always easy to tease apart what belongs either to the lexical or to the post-lexical level or component.

For this reason, the idea of a continuum between IM and DM has been suggested which places contextual IM (closer) to the prototypical center while nominal case and verbal person are less or unprototypical (cf. Dressler 1989). On the other hand, action and agent nouns are claimed to be less or unprototypical instances of DM while denominal adjectives are considered prototypical cases of DM. One problem with this view – besides the general criticism raised against the pervasive usage of the concept of prototype in linguistics and more in general in science (cf. Geeraerts 2010 for a critical overview) – is that it is not clear what has to be considered prototypical for DM. In fact, also denominal adjectives might be viewed as unprototypical as for instance in the case of deanthroponymic adjectives like *Chomskian*, *Dresslerian*, etc., which come close to true genitives. Probably, the only really clear-cut property keeping IM and DM apart is the capacity of DM to give rise to a new lexeme, the latter intended as “a (potential or actual) member of a major lexical category, having both form and meaning but being neither, *and existing outside of any particular syntactic context* [my emphasis, LG]” (Aronoff 1994: 11). This latter definition does not solve all problems, but – with its emphasis on the lexeme stripped off of any realization in concrete word forms – it provides at least a minimal criterion for opposing IM and DM along the continuum in terms of “degree of membership”. On this basis the boundary between IM and DM can be conceived as discrete, while the prototypical effects arise with regard to the “degree of representativity” (cf. Geeraerts 2010: 191). Accordingly, unprototypical (or in other terms: a bad representative of) IM will come close to DM insofar as it will be inherent (or context-independent) and category-changing. Even if the reverse is not true, as DM need not be always associated with the change of the

word-class membership of the base as shown by cases like *king* → *kingdom*, *art* → *artist*, etc., we might in fact be tempted to interpret the presence of a class-membership change of the base as a signal of the occurrence of a new lexeme, i.e. of DM. In this regard, one problematic case is the so-called *masdar* in Lezgian as discussed by Haspelmath (1996):

- (2) *Wun fad qarağ-un-i čun tažub iji-zwa*  
 you.ABS early get.up-MASD-ERG we.ABS surprise do-IMPF  
 ‘That you are getting up early surprises us’.

The crucial point for this verbal noun to be qualified in terms of a category-changing IM as pled for by Haspelmath is the fact that it displays different syntactic properties in dependence of the vantage point: if looked at “from below” the *masdar* preserves its verb-like syntax insofar as it governs a noun marked with the absolutive case as in the standard syntactic construction. From above, however, the *masdar* is assimilated to a typical noun marked by ergative case in the sentence. This makes the case of *masdar* (and similar verbal nouns) different from true action nouns (including conversions or zero-derivations), in which the syntactic behavior is assimilated as a whole to the target category. Following Haspelmath and Sims (2010: 261), we can assume that the effect of the category-changing IM is observed at the level of the external syntax of the *masdar* while its word-class membership remains unaltered at the lexemic level:<sup>2</sup>

- (3) a. *qarağ-un* ‘getting up’  
       <<V>N>  
       *qarağ*           *un*  
 b. *transform-ation*  
       N  
       *transform*       *ation*  
 c. *conto* ‘count’  
       N  
       *cont*           *o*

2. In this regard, Haspelmath and Sims (2010) speak of “word-form word-class” determining the external syntax opposed to the “lexeme word-class” determining the internal syntax. This terminology does not seem to me to be particularly illuminating because it assumes that word-class membership be related to the single word-form which sounds odd if word-class membership is taken to be – as it normally is – a constitutive property of lexemes. For this reason, I prefer to distinguish between internal (or from below) and external (or from above) syntax.

The angle brackets express the dual nature of class-membership displayed by the masdar (unaltered for the internal syntax but modified externally), while in the *bona fide* example of DM (3b) the word-class membership of the verbal base is radically deleted by the word-formation process. Notice that the Italian example of conversion *contare* ‘to count’ → *conto* ‘count’ in (3c) might appear problematic for Haspelmath and Sims’ (2010) view, because the inflectional ending might be taken to be responsible for the transpositional effect.<sup>3</sup> However, with regard to the class-membership *conto* is likely to pair with the action noun *transformation* rather than with the masdar *qarağun* because *conto* radically deletes the word-class membership of the base (I will come back to this question later in §5). On the other hand, as Haspelmath and Sims (2010: 262) also point out, it is not clear whether a representation like that assumed in (3b–c) is entirely correct in the light of allegedly *bona fide* examples of DM preserving (at least pieces of) the internal syntax as for instance the government of adverbs by action nouns in the following Italian example (cf. Gaeta 2015a for a discussion):

- (4) *Con la pubblicazione ieri sulla gazzetta ufficiale del DL 104 è da oggi legalmente possibile ricominciare a “svapare” nei luoghi pubblici*  
 ‘With the publication yesterday in the official journal of the Law 104, since today it is legally possible to start again with smoking electronic cigarettes in the public spaces’.

In sum, Haspelmath and Sims (2010) converge with the representation in terms of a continuum between IM and DM and the prototypical effects seen above testify of different degrees of representativity while membership to either category can be conceived as discrete. In this regard, bad representatives of DM are cases in which no real lexeme formation is likely to take place, even in the presence of a *bona fide* example of DM. Thus, while the Italian diminutive suffix *-ett-* normally gives rise to new lexemes as in *cassa* ‘case’ → *cassetta* ‘small box, mailbox’, *libro* ‘book’ → *libretto* ‘booklet’, it is questionable whether one really observes cases of new lexeme formation in the following sentence in which the two diminutives are only there to serve a morphopragmatic function in Dressler and Merlini Barbaresi’s (1994) sense:

- (5) *Caro, hai preparato l’acqu-etta per il bagn-etto?*  
 ‘Dear, did you prepare the water-DIM for the bath-DIM?’

Bad representatives of DM are not limited to category-preserving patterns like diminutives but involve also category-changing suffixes like the genitive-like suffix

3. In contrast with participles, *conto* cannot be treated as word form of *contare*, also because the inflectional suffix *-o* has a completely different value for nouns and verbs.

-ian forming denominal adjectives mentioned above because it is not straightforward that derivatives like *Chomskian*, *Dresslerian*, etc. should really be considered new lexemes. Similar observations have been made for the adverbializing suffix *-ly* which is even taken to belong to IM by authors like Haspelmath (1996).

Besides the enhanced productivity, the common property shared by the action nouns, the morphopragmatic diminutives and the deanthoponymic adjectives is the scarce semantic content displayed by the suffixes and/or by the alleged lexemes based on them. In fact, as Aronoff (1994: 10) reminds us, the concept of lexeme approximates that of vocabulary word: "As a vocabulary word, a lexeme stands outside any syntactic context beyond that for which it is lexically specified or subcategorized". Correspondingly, lexeme formation implies a formal side, i.e., compounding or derivation including conversion or zero-derivation "as lexeme formation that has no morphological realization" (Aronoff 1994: 15), a syntactic side basically referring to the word-class membership, and a semantic side which "may provide more detailed semantic information for the base and the output beyond their simple categories" (Aronoff 1994: 16). The latter is often referred to as a new concept formation, and is often taken as a constitutive property of DM in contrast with IM. That the idea of associating DM with new concept formation is illusory is shown by the examples discussed above: derivatives formed with *-ian*, *-ly* and to a certain extent Italian *-ett-* are bad representatives of DM exactly because they are rather poor semantically.

At any rate, Aronoff's understanding of the concrete semantic contribution to the process of lexeme formation is much more cautious, as it is simply limited to identifying "more detailed semantic information". In this way, he aims at keeping the question of the abstract pattern underlying lexeme formation processes distinct from the concrete profile of the lexemes as members of the lexicon, which normally display "stable" meanings. In this regard, Aronoff neatly distinguishes between the process of lexeme formation which is dealt with by DM and the process of lexicalization intended as the process of entering the lexicon as a stabilized unit. Although we have no place to elaborate further on this crucial distinction (see Gaeta 2015b for more details), it is important to stress that lexeme formation implies a potential dimension which only in a subsequent step can give rise to lexemes concretely stored in the (mental) lexicon. As Corbin (1997: 59) has observed: "[L]a morphologie a davantage vocation à construire des unités lexicales que les autres composants de la grammaire ... Mais ... ses produits ne sont pas automatiquement lexicalisés".<sup>4</sup> Thus, even if DM might be thought to have a privileged relationship with the lexicon, we have to distinguish between the lexeme as

4. ['Morphology has more vocation to build lexical units than the other components of grammar. But its products are not automatically lexicalized', my translation].



a unit of the lexicon and the lexeme as the (potential or concrete) result of a lexeme formation process. This allows us to understand what is the real significance of the process of lexicalization, namely the stabilization or entrenchment of an expression into the (mental) lexicon, which has to be kept distinct from the lexeme formation giving rise to lexemes not automatically lexicalized.<sup>5</sup> In this light, words like *bagnetto* or *Chomskian* do constitute instances of DM since they are the concrete realization of its potential dimension, but they are bad representatives of it because of their poor semantic content. On the other hand, they can become stabilized units of the lexicon, especially if they happen to be associated with additive meanings as in the case of *Faustian* or *Orwellian*. This conclusion will also be relevant for the case of the valency changes to which we turn in the next section.

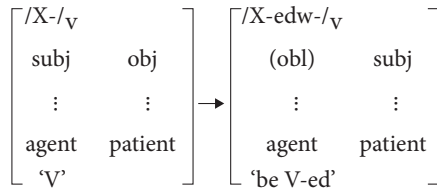
### 3. Deriving valency changes across inflection and derivation

Independently of the theoretical model preferred, valency changes, intended as changes in the argument structure of a verb, are usually distinguished in two types (cf. Haspelmath & Sims 2010: 234–245; Wunderlich 2015 for a survey): the function-changing operations which intervene on the relation between the syntactic functions and the semantic roles, and the event-changing operations which modify the conceptual (or event) structure of a verb in such a way that the argument structure is affected.

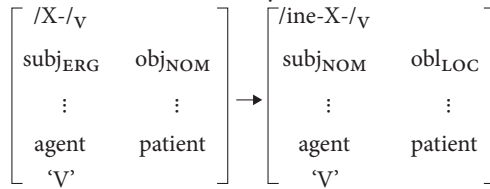
Among the function-changing operations, passive and antipassive operations are included in which the number of arguments is usually decreased and/or their syntactic coding modified with regard to the active counterpart, as in these examples respectively from Chichewa (6a–b) (Dubinsky & Simango 1996) and Chukchi (6c–d) (Wunderlich 2015):

- (6) a. *Naphiri a-na-lemba kalata.*  
       Naphiri 3SG-PST-write letter  
       ‘Naphiri wrote a letter.’  
       b. *Kalata i-na-lembedwa (ndi Naphiri).*  
       letter 3SG-PAST-write-PASS by Naphiri  
       ‘The letter was written by Naphiri.’

5. A further meaning of the term *lexicalization* is the abstract noun based on the verb *to lexicalize*, which is common especially in generative circles to designate the concrete lexical implementation of abstract semantic traits. This meaning presupposes that the lexical items “interpret” abstract (and pre-existing) traits, and has to be regarded as rather theory-internal in the light of the primacy commonly attributed to the (mental) lexicon.



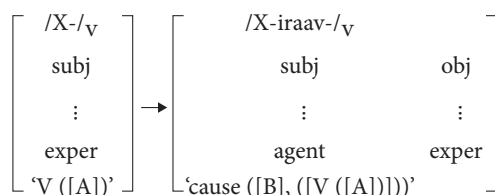
- c. *tumg-e ninqey r̥eygetetew-nin*  
 friend-ERG boy.NOM save-AOR.3SG.3SG  
 'The friend saved the boy.'
- d. *tumgatum ninqey-ək ine-nyegtele-g̊zi*  
 friend.NOM boy-LOC ANTIP-save-AOR.3SG  
 'The friend saved the boy.'



The schemas are adapted from Haspelmath and Sims (2010) and represent in rather simple terms the valency change brought about by the morphological operation: the example from Chichewa (6b) exemplifies a classical passive alternation in which the semantic role of the agent encoded as a subject is demoted to an optional syntactic role of oblique (henceforth: A-Dem) while the patient is promoted to subject (henceforth: P-Prom). In Chukchi (6d), the antipassive prefix forces the demotion of the object to an oblique encoded by the locative case while the subject, normally marked by the ergative case, acquires the nominative case which normally marks the patient in a transitive sentence.

As for the event-changing operations, the causative is fairly widespread as an argument-increasing technique, while the resultative and the anticausative constitute the most common argument-reducing operations. The following examples are taken respectively from Kashmiri (7a–b) (Hook & Koul 2006), Chichewa (7c) (Dubinsky & Simango 1996), and Lithuanian (7d–e) (Geniušienė 2006):

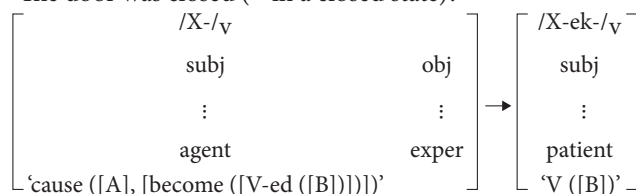
- (7) a. *su byemaar chu bal-aan.*  
 that sick.person is recover-ing  
 'That sick person is getting better.'
- b. *DaakTār chu byemaaras bal-iraav-aan.*  
 doctor is sick.man heal-CAUS-ing  
 'The doctor is making the patient better.'



- c. *Chitseko chi-na-tsek-eka.*

door 3SG-PAST-close-RESULT

'The door was closed (= in a closed state).'



- d. *Petr-as atver-ia lang-a.*

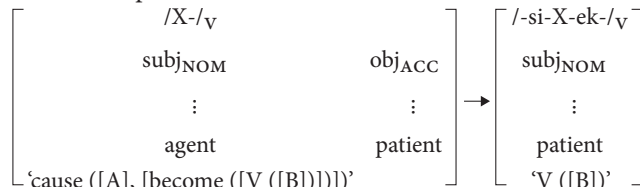
Peter-NOM open-3.PRES window-ACC.SG.M

'Peter opens (is opening) the window.'

- e. *Dur-ys at-si-dar-è.*

door-NOM.PL.F PERF-REFL-open-3.PAST

'The door opened.'



While the Kashmiri causative suffix (7b) increases the argument number of the verb, the argument reducing operations of the Chichewa resultative (7c) and of the Lithuanian anticausative (7e) crucially involve the P-Prom and the radical demotion of the agentive subject (henceforth: A-Rad-Dem), which is either eliminated or only expressible in an indirect form. Notice that the Lithuanian anticausative (7e) exploits the marker *-si-* normally used in the reflexive construction, which represents a fairly common situation cross-linguistically (see Wunderlich 2015 for a discussion). In spite of their similar effect expressed by the similar schemas, the main difference with the resultative consists in the latter's emphasis on the resultant state which is not necessarily present in the anticausative, as shown by the following sentence with a clear potential value:

- (8) *Dur-ys sunkiai at-si-dar-o.*  
 door-NOM hard PERF-REFL-open-3.PRES  
 'The door opens with difficulty' (= 'is hard to open')

Halfway between function- and event-changing operations reflexives and applicatives are found, which combine the property of partially changing the coding of the semantic roles by means of different syntactic functions with a partial modification of the conceptual structure of the event denoted by the verb. Thus, in contrast with the anticausatives the reflexives do not normally imply the detransitivization of the verb accompanied by the P-Prom as shown by the Bolivian Quechua example (9a–b) (Wunderlich 2015) in which the object is linked both with the patient and with the agent, while in the case of the applicatives the coding of a third object associated with a semantic role of recipient is usually promoted to a second object (henceforth: Rec-Prom) similar to function-changing operations as in the applicative found in German (9c–d). At any rate, there are cases in which a third argument is added as in event-changing operations for instance in the benefactive-applicative found in Chichewa (9e) (Dubinsky & Simango 1996):

- (9) a. *Pedru maylla-ku-n.*  
 Pedro wash-REFL-3SG  
 'Pedro washes himself.'
- b. *Pedru uya-n-ta maylla-ku-n.*  
 Pedro face-3SG-ACC wash-REFL-3SG  
 'Pedro washes his (own) face.'
- |       |         |           |
|-------|---------|-----------|
| /X-/V |         | /-X-ku-/V |
| subj  | obj     | subj      |
| ⋮     | ⋮       | ⋮         |
| agent | patient | agent     |
| 'V'   |         | 'V'       |
- 
- c. *IKEA liefert dem Nachbar-n die Möbel.*  
 IKEA delivers the.DAT neighbour-DAT the furniture.PL  
 'IKEA delivers furniture to the neighbour.'
- d. *IKEA be-liefert den Nachbar-n mit Möbel-n.*  
 IKEA APPL-delivers the.ACC neighbour-ACC with furniture-PL.DAT  
 'IKEA delivers furniture to the neighbour.'
- |                     |                     |                    |  |                     |
|---------------------|---------------------|--------------------|--|---------------------|
| /X/V                |                     | /bə-X/V            |  | /bə-X/V             |
| subj <sub>NOM</sub> | iobj <sub>DAT</sub> | obj <sub>ACC</sub> |  | subj <sub>NOM</sub> |
| ⋮                   | ⋮                   | ⋮                  |  | ⋮                   |
| agent               | recipient           | patient            |  | agent               |
| 'V'                 |                     | 'V'                |  | obl <sub>PP</sub>   |
-

e. *Naphiri a-na-phik-ira* *Chibwe nyemba*.

Naphiri AGR-PAST-cook-APPL Chibwe beans

'Naphiri cooked Chibwe beans.'

[-X-/V		[-X-ira/V		
subj	obj	subj	obj	obl
⋮	⋮	⋮	⋮	⋮
agent	patient	agent	beneficiary	patient
'V'		'V'		

In (9e) the Rec-Prom takes place insofar as the appearance of the applicative affix *-ir-* correlates with the occurrence of the benefactive argument *Chibwe* replacing *nyemba* as the direct object of the sentence which is normally placed immediately close to the verb. In addition, it can be observed that the applicatives often display an interesting semantic effect of “holistic affectedness” of the third object promoted to direct object, which is represented as entirely affected by the (consequences of the) action accomplished by the agent (see Levin & Rappaport Hovav (2005: 208–209) for a discussion).

The interest of the rough picture sketched above of valency-changing operations – which is far from being complete<sup>6</sup> – resides in its connection with the inflection / derivation continuum discussed in §2 above. In this regard, Haspelmath and Sims (2010: 244) observe that “the semantic/syntactic contrast between event-changing and function-changing operations shows a clear correlation with derivational and inflectional status of the valency-changing affixes”. In particular, function-changing operations, i.e. passive and antipassive, are expected to belong primarily to IM while event-changing operations, i.e. resultative, causative and anticausative, belong primarily to DM. This generalization fits well Bybee’s (1985) principle of relevance stating that those morphological markers normally come closer to the verb stem which display a greater effect on the meaning of the verb. Clearly, event-changing operations are more relevant in Bybee’s technical sense than function-changing operations because they modify the conceptual structure of the event by adding or deleting an argument. Since this principle is also credited to underlie the universal tendency (Greenberg’s Universal 28) whereby DM occurs internally with regard to IM, the prediction is made that this order is also reflected by valency-changing operations: V-caus-pass / \*V-pass-caus. In other words, all other things being equal, DM is applied before IM. As argued by Haspelmath and Sims (2010: 244), this prediction is borne out in Chichewa in which, as we have briefly seen above, a whole range of valency-changing phenomena occur:

6. In this regard, see Merchant’s (2013) recent investigation of the interaction of valency changes such as the passive with the phenomenon of ellipsis in a number of languages.

- (10) a. *Chibwe a-na-phik-ir-idwa nyemba.* appl >> pass  
 Chibwe 3SG-PAST-COOK-APPL-PASS beans  
 'Chibwe was cooked beans for.'
- b. \**Chitseko chi-na-tsekul-idw-ira Chibwe.* \*pass >> appl  
 door 3SG-PAST-open-PASS-APPL Chibwe  
 'The door was opened for Chibwe.'
- c. *Chitseko chi-na-tseku-k-ira Chibwe.* result >> appl  
 door 3SG-PAST-open-RESULT-APPL Chibwe  
 'The door was opened (= in an opened state) for Chibwe.'

While the (benefactive-)applicative occur closer to the stem than the passive (10a), the reverse does not hold (10b) and only the resultative can occur internally (10c).

#### 4. The peculiar status of valency alternations

Once the picture of the valency changes across IM and DM has roughly been sketched, the question can now be raised relating to the valency changes which are not overtly coded by means of an affix like those seen in §3 above, the so-called valency alternations: where do they actually belong? One preliminary problem has to do with their status. Take for instance the so-called dative alternation in English:

- (11) a. *I baked a cake for her.*  
 b. *I baked her a cake.*

This is a classical case which has been treated in purely syntactic terms as for instance in the Neo-Constructionist framework of Alexiadou, Anagnostopoulou and Sevdali (2013), or in Lexical(ist) terms by Rappaport Hovav and Levin (2008). In this latter view, which comes closer to the approach espoused here, the question arises whether this is a purely lexical phenomenon as for instance a semantic shift of a metaphorical / metonymic type like *curiosity* 'quality of being curious' > 'curious thing' possibly depicting a regular polysemy in Apresjan's (1974) sense, or something else which has parallels in a domain different from the lexical semantics, and precisely in word-formation. Unfortunately, scholars speaking of a lexical process (e.g., Fagan 1988; Booij 1992; Dixon 2000; and Rappaport & Levin 2008 among many others) are not very explicit on this aspect and often do not qualify such a lexical process consistently in terms of lexeme formation. In this regard, Dixon's (2000) position is highly significant of the way how the valency alternations are often treated with regard to this aspect. In fact, for the valency alternations found in *John spilled the milk* / *The milk spilled* he speaks of lexical causatives on a par with purely lexical correspondences like *John killed Mary* / *Mary died*.

Notice that both of them are taken to be distinct from true morphological derivations. That this solution is unsatisfactory is shown by his observation that the case of the alternation shown by *spill* can be highly productive in certain languages (for instance in Tunica practically any verb displays a similar alternation), while the lexical correspondences like *kill* / *die* are usually limited and sporadic. What is more, the latter case is only driven by the semantic affinity of the verb pair involved, which is often subject to a certain indeterminacy: for instance one might also consider instances of such a causative alternation verb pairs like *murder* / *decease*, *assassinate* / *expire*, etc. Independently of the adequacy of assuming these pairs, the point is that this stands in neat contrast with the former case in which the valency alternation found in *spill* is clear-cut. Moreover, it is not clear why a systematic correspondence as that found in Tunica can be considered lexical on a par with an isolated correspondence like *kill* / *die*. While this latter cannot clearly be intended as a lexeme formation, it remains to be understood whether the productive cases of Tunica are indeed to be understood as instances of lexeme formation in Aronoff's sense depicted in §2 above.

García Velasco and Hengeveld (2002: 116) are among the few who in this regard are quite explicit in connection with the English anticausative alternation reported below adopting their representation:

- (12) *open* [V]  
 1. [ $f_1$ : [CAUSE ( $x_1$ ) [BECOME **open**' ( $x_2$ )]]]     *Mary opens the door.*  
 2. [ $f_1$ : [BECOME **open**' ( $x_1$ )]]     *The door opens.*

They comment that "the relation between the two meaning definitions of *open* is evident: the second one consists of a subpart of the first one", and that for this reason "it is relatively easy to formulate a rule which derives one abstract meaning definition of *open* from the other, and then link each of the definitions to a different predication frame". Their straightforward conclusion is that "Predicate Formation may thus be replaced by Lexeme Derivation". They add that "[i]t remains an open question whether ... meaning definition 2 is derived from 1 ... or the other way around". We will come back to the issue of directionality below.

Also Löbner (2002: 105), even though coming from a strictly semantic perspective, reaches the similar conclusion that "[t]hese must be considered to be two different verbs as they belong to two different classes (intransitive vs. transitive verbs)", because "intransitive and transitive *open* express different predications about their respective subject arguments".

Such a valency alternation in the absence of an explicit coding goes under the name of lability in Caucasian linguistics: the so-called labile verbs can be employed in different syntactic constructions (e.g. both as causatives and corresponding non-causatives) without any formal change. Kulikov (2001: 887) is agnostic on the

possibility of treating lability in terms of lexeme formation similar to what García Velasco and Hengeveld (2002) assume in the case of *to open*: “There is, however, neither any consensus on whether such verbs should be treated as one lexical unit with two different syntactic uses or as two separate lexical units ..., nor is there any generally accepted term for such verbs/pairs”.

Letuchiy (2009) rejects entirely the hypothesis that lability might be treated as “a sort of unmarked valency derivation”; instead, it has to be interpreted as “a sort of polysemy, similar to other types of polysemy existing in natural languages”. To support his view, Letuchiy suggests a number of differences between a treatment in terms of polysemy and a derivational account, which is however not further specified as pertaining to either IM or DM. However, it is not entirely clear to me what Letuchiy really means by the usage of the term “polysemy” as crucially opposed to the lexeme formation proper maintained by García Velasco and Hengeveld (2002) and Löbner (2005). In fact, polysemy intended as meaning extension (as for instance in Apresjan’s sense mentioned above) is also oriented and can give rise to new lexemes as well.<sup>7</sup> The main difference between a process of regular polysemy ultimately leading to new lexemes and a process of lexeme formation proper consists in the latter’s productivity, usually expressed by means of an abstract rule or a schema filled by a certain lexical set displaying specific properties, as briefly discussed in §2 above. The schema usually contains affixal modifications, but also conversions occur, which normally – although not necessarily – only involve a word-class change. I will come to this issue in the next section.

On the other hand, meaning extensions are context-bounded and normally manifest themselves with the increase of frequency of a certain word in more and more contexts. In this sense, it is a basically unpredictable lexical phenomenon, distinguished from lexeme formation proper. In Letuchiy’s view, it is not clear whether his preference for an account in terms of polysemy is due to the scarce productivity of this process in the languages considered. That this suspicion is indeed not far from truth is shown by Letuchiy’s (2009: 264) admission of the possible inadequacy of his view for the English case: “On the whole, the approach proposed here is problematic only for languages like English, where lability is very productive”. In this case, “lability may rather take the functional niche of an unmarked valency derivation”. Thus, even admitting that for some languages valency alternations might be seen as a lexical phenomenon akin to polysemy,

7. As is well-known, delimiting polysemy from homonymy is not an easy task. In this regard, Croft and Cruse (2004: 111) come to the conclusion that a principled distinction can only be made on etymological grounds while in synchronic terms the distinction is often a matter of degree (cf. Gaeta 2010a for a discussion).



Letuchiy concedes that valency alternations are possibly related to IM or DM in those languages in which they are very productive.

At any rate, the interpretation of valency alternations in terms of lexeme formation has never been really spelt out consistently. In its strongest formulation, it refers to the possibility envisaged by García Velasco and Hengeveld of having a process of lexeme formation of the sort sketched above, as for instance the applicative in Chichewa or the anticausative in English. In this light, the question arises as to what kind of DM are these operations likely to be comparable. As observed by Haspelmath and Sims (2010: 245):

“The[se] ... alternations are not usually discussed under the heading of morphology, but there is really no deep reason why they should not. Morphological operations need not be associated with a particular change in the pronunciation ... When they are not, morphologists speak of conversion”.

Following this suggestion, we will discuss in the next section what really means to treat valency alternations in terms of a morphological operation.

## 5. Valency alternations as a morphological operation

As is well-known, the assumption of a process of conversion or zero-derivation<sup>8</sup> is the answer provided by morphologists to the usage of a certain word in a different and apparently secondary syntactic environment with regard to its “primary” usage. It has to be specified that the usage in a different – secondary – syntactic context often (but not necessarily) correlates with the occurrence of inflectional morphology typical of the target word-class in contrast with that characterizing the “primary” usage in the source word-class. Furthermore, the distinction of a source and a target word-class implies a clear directionality of the process, including a certain degree of productivity, which envisages its application to a, possibly well-defined, set of bases. Unfortunately, these two properties by themselves do not help us delimit the conversions from the cases of word-class changing inflection seen above. Usually, this is done by invoking the rise of a new lexeme, arguably different from the source lexeme, as has been portrayed in (3c) above for the Italian deverbal noun *conto*. This is motivated by its complete assimilation to the

8. In this regard, two different views are defended: while the assumption of a zero morpheme attempts at reducing this process to the general properties of affixation, conversion intended as relabeling is meant to oppose such derivatives to affixations as resulting from a radically different operation of word-formation. Although the issue is quite controversial, there seems to be a large preference today for the assumption of conversion. See Gaeta (2013) and Valera (2015) for a discussion.

target class of nouns insofar as *conto* displays a full nominal behavior without any verbal feature – only number inflection (13a), no TAM inflection (13b) – including a full nominal syntax with only adjectival modification and genitive complements (13c) (cf. Gaeta 2015a for details):

- (13) a. *Il conto / I conti di Antonio è / sono preciso / precisi.*  
 the count / the.PL counts of Antonio is / are precise / precise.PL  
 ‘Antonio count / counts is / are precise.’  
 b. *Il conto / \*aver conto dei soldi non è stato inutile.*  
 the count / have.INF count of.DEF money not is been useless  
 ‘The count of the money has not been useless.’  
 c. *Il conto continuo / \*continuamente dei / \*i soldi è necessario.*  
 the count continuous / continuously of.DEF / the money is necessary  
 ‘The repeated count of the money is necessary.’

This clearly contrasts with the nominalized infinitive *contare* which does not display number inflection (14a) on the one hand while on the other it shows TAM properties (14b) and a clearly sentential government of adverbs and direct objects (14c), even though adjectival modifications are also possible with certain adjectives like *continuo* as shown by the examples (14c–d):

- (14) a. *Il contare / \*I contari di Antonio è / \*sono preciso /*  
 the count.INF / the.PL count.INF.PL of Antonio is / are precise /  
 \*precisi.  
 precise.PL  
 ‘Antonio’s counting is precise.’  
 b. *L’aver contato i soldi non è stato inutile.*  
 the-have.INF count.PASTPTCP the money not is been useless  
 ‘Having counted the money has not been useless.’  
 c. *Il contare continuamente / continuo i / \*dei soldi è*  
 the count.INF continuously / continuous the / of.DEF money is  
*necessario.*  
 necessary  
 ‘Quickly counting the money is necessary.’  
 d. *Il continuo contare i soldi*  
 the continuous count.INF the money  
 ‘The continuous counting the money’

Again, as suggested by Haspelmath and Sims (2010), a continuum between true word-class changing inflection and conversion has to be assumed, in which the different cases display several degrees of representativity of the respective prototypes. In particular, within theoretical morphology cases like the Italian nominalized

infinitive are usually treated as an instance of syntactic conversion which obeys a quite general rule simply consisting in the insertion of any possible word into the head position of a noun phrase. This operation is possible with almost any kind of words, from verbs to particles:

- (15) a. [...]<sub>V</sub> → [...]<sub>N</sub> *il dormire* ‘the sleeping’  
 b. [...]<sub>Adj</sub> → [...]<sub>N</sub> *il bello* ‘the beauty’  
 c. [...]<sub>Adv</sub> → [...]<sub>N</sub> *l’oggi* ‘the present day’  
 d. [...]<sub>Pron</sub> → [...]<sub>N</sub> *l’io* ‘the ego’  
 e. [...]<sub>Conj</sub> → [...]<sub>N</sub> *il perché* ‘the reason why’  
 f. [...]<sub>Part</sub> → [...]<sub>N</sub> *l’evviva* ‘the hurrah’

The ultimate reason of this theoretical move is that it allows us to tear these cases apart from the instances of conversion proper insofar as the former don’t give rise to lexeme formation because they arise in the syntactic chain (cf. Thornton 2004: 522 on the Italian nominalized infinitive among many others; see Valera 2015 for a survey). In a way, this difference between syntactic and morphological conversions which are crucially distinguished by the effect of lexeme formation of the latter leads us to a further observation made by Haspelmath and Sims (2010: 262):

“The difference between transpositional inflection and transpositional derivation is interestingly similar to the difference between event-changing and function-changing operations ... Event-changing operations are generally derivational and involve a change in the argument structure of the base, like most transpositional derivation. Function-changing operations are generally inflectional and involve no change in the argument structure of the base, like transpositional inflection. The main difference is that function-changing operations of course change syntactic functions, whereas in prototypical transpositional inflection no functions are changed”.

In our terms, those cases of valency alternations are good candidates for a DM treatment implying lexeme formation which approximate event-changing operations, while function-changing operations are more likely to be instances of IM without lexeme formation. It has to be stressed that Haspelmath and Sims’ (2010) observation considerably widens the viewpoint adopted by Rainer (1993: 15–16) who summarizes the standard position largely assumed within theoretical morphology:

“Unklar ist bis zu einem gewissen Grad auch der Status von Valenzveränderungen ..., wo ein intransitives Verb transitiv verwendet wird ... Hier stellt sich ebenso wie bei der Bedeutungsübertragung die Frage, ob solche Veränderungen als Fälle von Konversion betrachtet werden sollen oder nicht. Für eine Behandlung in der Wortbildung spricht, daß die Valenzveränderung die Folge einer semantischen

Veränderung (Kausativierung) ist, die in vielen Sprachen durch ein Affix ausgedrückt wird”<sup>9</sup>

Here, Rainer makes reference to the well-known criterion of the overt analogue (cf. Sanders 1988) whereby the assumption of conversion in a certain language is justified if it corresponds to overtly coded derivational processes displaying a similar meaning occurring in the language or more in general cross-linguistically. Haspelmath and Sims (2010) refine this view by assuming that the overt-analogue criterion has to be paralleled by a certain type of operation accomplished by the valency alternation either of the function- or of the event-changing type. Accordingly, not all valency alternations have to give rise to lexeme formation, but they can be rather aligned along the IM / DM continuum.

However, Rainer (1993: 79) explicitly excludes from a treatment in terms of conversion those cases which do not display a word-class change, although he admits that his decision is “not obvious”, especially when the valency alternations involve rather “salient” semantic changes like those envisaged by the event-changing operations as for instance causatives. In contrast with these latter, Rainer maintains that valency alternations with a rather “light” semantic content like the function-changing operations have to be firmly excluded from the domain of lexeme formation, like for instance the case of the Spanish verb *informar* ‘to inform’ which displays a valency structure either with double accusative as in *nos lo han informado* ‘they have informed us (about) it’ or with a genitive-like second object as in *nos han informado de ello* ‘lit. they have informed us of it’. The latter is apparently due to the analogical influence of other synonymous verbs of saying such as *nos lo han comunicado* ‘they have communicated it to us, lit. us it’. It remains to be understood whether this case represents an instance of a default inheritance network as it is commonly assumed in the Constructionist approaches (cf. Goldberg 2013: 21). However, it clearly cannot be treated on a par with the other valency alternations discussed here.

In contrast to Rainer’s explicit rejection of conversions without word-class changes, we can take the essentially more liberal view that the criterion of the overt analogue need not be accompanied by a transcategorization, as suggested by Thornton (2004). This allows us to include into conversion cases like the feminine formation found in the Italian example: *ragazzo* ‘boy’ → *ragazza* ‘girl’, in which

9. [‘Also the status of valency changes where an intransitive verb is used transitively is to a certain extent unclear. Similar to the meaning extension, the question arises here whether such valency changes should be treated as cases of conversions or not. In favor of a treatment in terms of word-formation the fact can be mentioned that the valency change is the consequence of a semantic change (causation) which is expressed in many languages by means of an affix, my translation].

the masculine root *ragazz-* is converted into its feminine correspondent which accordingly takes the feminine inflectional marker in a parallel way with the overt analogues *principe* 'prince' → *princip-essa* 'princess', *scala-tore* 'climber-AG.M' → *scala-trice* 'climber-AG.F', etc. Clearly, this view nails down that a clear directionality be easy to identify, and in particular that the root *ragazz-* intrinsically carries the gender specification manifested by the overt masculine ending which is subsequently modified by the feminine conversion.<sup>10</sup>

While the change of the inflectional properties of the derivative is a possible correlate of the conversion as shown by *ragazza* with regard to *ragazzo*, this does not need to be the case, as is exemplified by the Italian tree names based on the corresponding fruit: *pompelmo* 'grapefruit.M' → *pompelmo* 'grapefruit tree.M'. However, in the absence of a formal differentiation from the base in terms of overt word properties, a competing analysis has been suggested for this latter type, in which a semantic extension of metaphorical or metonymic is called into play. Also in this case, the analysis in terms of conversion is preferable, even though of a somewhat peripheral type, because it is strictly paralleled by instances in which the semantic change is accompanied by a change in the word properties such as *mela* 'apple.F' → *melo* 'apple tree.M'.<sup>11</sup> Thus, for our analysis of valency alternations we will adopt Thornton's view which mainly relies on the overt analogue criterion, possibly sustained by the change of further word properties such as inflectional class, and in their absence we will speak of a peripheral instance of conversion (cf. also Valera 2015).

A question which has seldom been raised in connection with conversions concerns their possible meaning. Probably, the reason is to be sought in the

10. In this regard, it is not clear to me whether this view also applies to cases in which no overt marker for gender is found like *preside* 'dean' or *cantante* 'singer'. They are defined as common gender nouns by Thornton (2004: 222) because gender marking is only manifested by agreement: *il / la preside* 'the (masc. / fem.) dean'. At any rate, overt analogues of the feminine conversion are also found here such as *il vigile* 'the (masc.) traffic warden' → *vigil-essa* 'woman traffic warden' as an alternative to the feminine conversion only manifested by agreement: *la vigile*.

11. Moreover, the overt analogue criterion can help us delimit this kind of conversions from other phenomena which are not to be attributed to lexeme formation proper. Among the latter, true cases of metonymic or metaphoric changes can be considered which are due to a different mechanism and do not normally have an overt analogue in lexeme formation such as for instance *gorgonzola* or *chianti*, in which a place name provides the label for a product typically produced in the place. More in general, a similar mechanism is responsible for the generalization of trademarks to denote common products like *Kleenex* or *Walkman*. Such semantic changes are not predictable insofar as it is not possible to foretell *a priori* whether a place name or a trademark will undergo the semantic change, while it is systematically possible in Italian to form the tree name on the basis of the fruit as in the recent loans *mango* 'mango.M' → *mango* 'mango tree.M' or *banana* 'banana.F' → *banano* 'banana tree.M'.

widespread attitude, also exemplified by Rainer, of identifying conversion with transcategorization. Moreover, the semantic aspects of word-formation are far less investigated while no general consensus seems to exist on the possible meanings and categories of meaning that can be conveyed by word-formation rules (cf. Lehmann 2015 for a survey). In this regard, Dokulil's (1968) tripartite onomasiological typology assumes three comprehensive categories of meaning usually expressed by DM: (a) modification in which the base undergoes a further sub-classification usually in hyponymic terms; (b) transposition in which the base undergoes a re-categorization whereby the original meaning is superimposed but not deleted; and finally (c) mutation, in which the derivative denotes a new entity with regard to the base by highlighting (or profiling) a component in the motivating lexical concept. Conversions cover the whole spectrum insofar as they give rise to (a) modification as in the Italian example of gender marking *ragazza* (16a); (b) transposition as in the nominalization *conto* seen in (3c) above (16b);<sup>12</sup> and finally (c) mutation as in the profiling of parts and wholes given by the tree name *melo* with regard to its base *mela* (16c):

- (16) a. 
$$\left[ \begin{array}{c} /...o/_{\text{NMASC}} \\ \text{'animate N'} \end{array} \right] \rightarrow \left[ \begin{array}{c} /...a/_{\text{NFEM}} \\ \text{'female correspondent of N'} \end{array} \right]$$
- b. 
$$\left[ \begin{array}{cc} /X-/_{\text{V}} & \\ \text{subj} & \text{obj} \\ \vdots & \vdots \\ \text{agent} & \text{patient} \\ \text{'V'} & \end{array} \right] \rightarrow \left[ \begin{array}{cc} /X-o/_{\text{NMASC}} & \\ (\text{subj}) & (\text{obj}) \\ \vdots & \vdots \\ \text{agent} & \text{patient} \\ \text{'act of V-ing'} & \end{array} \right]$$
- c. 
$$\left[ \begin{array}{c} /...a/_{\text{NFEM}} \\ \text{'fruit N'} \end{array} \right] \rightarrow \left[ \begin{array}{c} /...o/_{\text{NMASC}} \\ \text{'tree of N'} \end{array} \right]$$

On this background, in the next section we will contrast valency alternations in two well-investigated languages, namely Italian and German, in which true morphological conversions also occur (cf. Gaeta 2013 for a contrastive picture).

12. In Italian the masculine conversions like *conto* must be distinguished from the feminine conversions like those found in *deliberare* 'to deliberate' → *delibera* 'deliberation' which display partially different properties. See Gaeta (2013) for details.

## 6. Valency alternations in Italian and German: A contrastive survey

Both Italian and German display a large number of valency alternations similar to those discussed in §3 above. We will first discuss valency alternations which can be grouped with IM and then turn to those more clearly relating to DM.

### 6.1 IM-Relating valency alternations

To start with, we will firstly distinguish cases which might be most likely assigned to IM insofar as they are generally held to not give rise to lexeme formation:

- (17) IT *Guido chiude / ha chiuso il negozio.*  
 Guido closes / has closed the shop
- G *Guido schließt den Laden / hat den Laden geschlossen.*  
 Guido closes the shop / has the shop closed  
 ‘Guido closes / has closed the shop’.
- a. passive
- IT *Il negozio viene / è stato chiuso (da Guido).*  
 the shop comes / is been closed (by Guido)
- G *Der Laden wird (von Guido) geschlossen / ist (von Guido) geschlossen worden.*  
 the shop becomes (by Guido) closed / is by Guido closed become  
 ‘The shop is / has been closed (by Guido)’.
- b. resultative
- IT *Il negozio è chiuso (??da / a causa di Guido).*  
 the shop is closed by / because of Guido
- G *Der Laden ist (??von / wegen Guido) geschlossen.*  
 the shop is by / because of Guido closed  
 ‘The shop is closed (?? by / because of Guido)’.
- c. reflexive
- IT *Guido si lava / si è lavato.*  
 Guido REFL washes / REFL is washed
- G *Guido wäscht sich / hat sich gewaschen.*  
 Guido washes REFL / has REFL washed  
 ‘Guido washes / has washed himself’.
- d. reflexive-anticausative
- IT *Il negozio si chiude / si è chiuso (\*da / a causa di Guido).*  
 the shop REFL closes / REFL is closed by / because of Guido

- G *Der Laden schließt sich / hat sich (\*von / wegen Guido)*  
 the shop closes REFL / has REFL by / because of Guido  
*geschlossen.*  
 closed  
 'The shop closes / has closed (\*by / because of Guido).'

Except for the difference in the auxiliary selection (IT *venire* 'to come' vs. G *werden* 'to become'), Italian and German fare strictly parallel as for the function-changing operation of the (dynamic) passive consisting of the A-Dem and of the P-Prom (17a). It must be added that in Italian *venire* is replaced by *essere* 'to be' in the analytic past tense forms: *La porta è stata / \*venuta chiusa* 'The door has been closed'. This renders the picture quite complicated because it gives rise to a neutralization with the (stative) resultative that can be disambiguated only contextually.<sup>13</sup> In this connection, notice that the event-changing operations of the resultative (17b) and of the reflexive-anticausative (17d) are distinct from the passive because they display the A-Rad-Dem carried out by means of a preposition usually introducing external causes: IT *a causa di* / G *wegen*. Moreover, in German the resultative is characterized by the use of the auxiliary *sein* 'to be' in the present perfect in contrast with *werden* 'to become' used in the passive (17a):

- (18) IT *Il negozio è stato chiuso tutto il giorno \*da / a causa di Guido.*  
 the shop is been closed all the day by / because of Guido  
 G *Der Laden ist \*von / wegen Guido den ganzen Tag geschlossen*  
 the shop is by / because of Guido the whole day closed  
*gewesen.*  
 been  
 'The shop has been closed the whole day \*by / because of Guido.'

In contrast with German, in Italian the resultative construction is structurally ambiguous with the passive as can be gathered from the comparison of (17a) and (18), but the exclusively resultative value of (18) is disambiguated by the use of temporal adverbs like *the whole day*, *for three nights*, etc., which focus on the resultant state

13. As pointed out to me by one anonymous reviewer, some sparse examples of *venire* occurring in compound tenses in a passive-like construction have been mentioned for older stages of Italian. However, in the recent reference grammar of Old Italian, this possibility is explicitly rejected by Salvi (2010: 145). I leave this issue open for further research. In a similar vein, it is not true that, strictly speaking, the passive with *venire* always requires a time adverbial in order to be acceptable, as objected by one reviewer, although this is quite common and clearly improves the acceptability of any of the sentences discussed throughout this paper. In fact, it is not difficult to find examples from the Internet in which no time adverbial occurs or is directly implied in the context: *Piano piano vanno via tutti. Il negozio viene chiuso di nuovo.* 'Slowly, everybody goes away. The shop is closed again.'



rather than on the process dimension and force the A-Rad-Dem. Notice that the state of affairs depicted in these sentences has been true in the past but does not necessarily hold at the speech time while this effect is normally obtained with the present perfect of the true passive sentences in (17a). On the other hand, in neat contrast to Italian (19a), in the German passive the A-Dem can be carried out independently of the P-Prom. In other words, the passive is possible with any kind of intransitive verb selecting either the HAVE-auxiliary or the BE-auxiliary in the active, as in respectively *arbeiten* ‘to work’ (19b) and *sterben* ‘to die’ (19c):

- (19) a. IT \**Oggi viene lavorato / morto spesso a casa.*  
           today comes worked / died often at home  
       b. G *Heute wird oft zu Hause gearbeitet.*  
           today becomes often at home worked  
           ‘Today it is often worked at home.’  
       c. G *Heute wird hier überall gestorben.*  
           today becomes here everywhere died  
           ‘Today one dies everywhere here.’

As is well-known, intransitive verbs are generally split in two different classes on the basis of a number of criteria (cf. Levin & Rappaport Hovav 1995; Alexiadou, Anagnostopoulou & Everaert 2004 among others). In particular, both in Italian and in German (cf. respectively Sorace 2000 and Cennamo 2015 for Italian and Keller & Sorace 2003 and Diedrichsen 2013 for German) a class of unergative verbs, which are intransitives characterized by the selection of the HAVE-auxiliary in the past perfect (20a) and by the restriction on the occurrence of past participles in noun phrases (20b), is generally distinguished from a class of unaccusative verbs which are intransitives that select the BE-auxiliary (20c) and can occur as participles in noun phrases (20d):

- (20) a. IT *Il gigante ha dormito qui.*  
           G *Der Riese hat hier geschlafen.*  
           ‘The giant has slept here.’  
       b. IT \**Il gigante dormito qui si chiama Ercole.*  
           G \**Der hier geschlafene Riese heißt Herkules.*  
           ‘int. The giant who has slept here is called Hercules.’  
       c. IT *Il gigante è caduto qui.*  
           G *Der Riese ist hier gefallen.*  
           ‘The giant has fallen here.’  
       d. IT *Il gigante caduto qui si chiama Ercole.*  
           G *Der hier gefallene Riese heißt Herkules.*  
           ‘The giant who has fallen here is called Hercules.’

Both languages select the BE-auxiliary (cf. IT *essere* / G *sein* 'to be') only in the resultative while the reflexive-anticausative, in spite of its similar event-changing effect, displays in German the selection of *haben* 'to have' on a par with the reflexive and in contrast to Italian in which the BE-auxiliary is selected. This is not surprising in virtue of their similar constructional form being essentially based on the reflexive construction in which the reflexive pronoun is used for signaling the valency change. Recall that this state of affairs is quite common cross-linguistically, as has been discussed in §3 above. However, the reflexive construction behaves rather like a function-changing operation inasmuch as the object role is not necessarily reduced, whereas this is not true of the reflexive-anticausative construction:

- (21) a. IT *Guido lava se stesso / sé e sua figlia.*  
           G *Guido wäscht sich selbst / sich und seine Tochter.*  
           'Guido washes himself (and his daughter)'.  
       b. IT *\*Il negozio chiude se stesso / sé e il suo portone.*  
           G *\*Der Laden schließt sich selbst / sich und sein Eingangstor.*  
           Int.: 'The shop closes itself (and its gate)'.  
       c. IT *Guido lava oggi se stesso / sé e sua figlia.*  
           G *Guido wäscht heute sich selbst / sich und seine Tochter.*  
           'Guido washes today himself (and his daughter)'.  
       d. IT *Il negozio oggi si / \*si oggi chiude alle cinque.*  
           G *Der Laden schließt sich heute / \*heute sich um fünf Uhr.*  
           'The shop closes today at five'.

In fact, the reflexive pronoun in the reflexive-anticausative must appear in its clitic form and accordingly cannot be strengthened or coordinated with another constituent (21a–b) nor separated from the verb by other constituents (21c–d).<sup>14</sup> This clearly keeps the reflexive-anticausative distinct from the purely reflexive construction and raises the question of its status with regard to this latter. In addition, one might be tempted to see an overt analogue of the reflexive-anticausative in those verbs which are prefixed by means of IT *auto-* / G *selbst-*, in which the semantic effect is apparently quite similar and the morphosyntactic model containing the reflexive marker directly replicated:

14. However, in German *sich* on a par with the other clitics can be hosted by the so-called Wackernagel's position immediately after a clause-initial conjunction which can be fairly distant from the finite verb: *Als sich die Tür öffnete, kam Guido herein* 'When the door opened Guido entered' (cf. Schäfer 2008: 276 for a discussion in the Minimalist framework).

- (22) IT *Il gasolio si è autoacceso \*da / per un malfunzionamento degli iniettori.*  
 G *Das Dieselöl hat sich \*von / wegen der Fehlfunktion der Einspritzpumpe selbstentzündet.*  
 ‘The diesel oil has inflamed because of the malfunctioning of the fuel injector’

The prefixed verbs IT *autoaccendersi* / G *sich selbstentzünden* clearly result from a process of lexeme formation which in its turn goes back to the reverbalization (i.e., the back-formation) of the corresponding action nouns: IT *autoaccensione* / G *Selbstentzündung* ‘self-ignition’ (cf. Mutz 2003; König 2011 and Angster 2012 for a critical assessment). Does the occurrence of an overt analogue mean that a process of lexeme-formation should be assumed also for the reflexive-anticausative alternation? One problem of such an interpretation is that the prefixation is not limited to the reflexive-anticausative alternation but reflects the reflexive construction as a whole. Accordingly, one also finds prefixed verbs with a true reflexive value (IT *autodistruggersi* / G *sich selbstzerstören*):

- (23) IT *La Repubblica di Weimar si è autodistrutta \*dai / a causa dei suoi conflitti interni.*  
 G *Die Weimarer Republik hat sich \*von / wegen ihrer inneren Konflikte selbstzerstört.*  
 ‘The republic of Weimar has destroyed itself because of its inner conflicts.’

Moreover, since the prefixed verb is always accompanied by the expression of the reflexive marker, one might ask what the function of the prefix really is. In fact, Angster (2012: 82–83) observes that this function has to be sought in an intensification of the involvement of the verbal subject in the process described by the predicate rather than in a true reflection of the syntactic mechanism of co-referencing which is carried out by the reflexive marker alone. Accordingly, when the reflexive does not show up the intensifying value of the prefix clearly emerges independently of any co-reference with the subject. In this regard, Italian examples can be mentioned in which the prefixed verb displays a further object: *La squadra autosospende un giocatore* ‘The team *auto*-suspends a player’. In this case, the prefix clearly has the value of intensifying the active role played by the team (and not, say, by the team manager) for the suspension of the player. The same applies to cases in which the co-reference is contextually impossible, for instance with prefixed verbs like IT *autotrapiantare* / G *selbst transplantieren* ‘to autograft’. Clearly, in (24a) no co-reference is possible between the subject of the verb and the prefix while the example (24b) shows that the verb can also be passivized:

- (24) a. IT *Silvio si è autotrapiantato i capelli.*  
 G *Silvio hat sich die Haare selbst transplantiert.*  
 ‘Silvio has undergone hair autograft.’

- b. IT *I capelli di Silvio sono stati autotrapiantati.*  
 G *Silvios Haar ist selbst transplantiert worden.*  
 'Silvio's hair has been autografted.'

In this light, it is clearly a DM (and in so far a lexical) phenomenon, but has less to do with the issue at stake here, namely whether this process of prefixation qualifies for the overt analogue of the valency alternation carried out by the constructions containing a reflexive marker. On the other hand, since the reflexive-anticausative parasitically exploits the same ingredients of the reflexive construction which is likely to be interpreted as a function-changing operation, it seems convenient to adopt a unitary solution, in which no true lexeme formation takes place.

It is not clear whether a benefactive alternation of the sort displayed in Chichewa (9e) is likely to be assumed in Italian and German, because on the one hand a prepositional benefactive can always be added as an adjunct to any predicate (25a–b) while on the other it can appear in a cliticized form only with a restricted subset (25c–d):

- (25) a. IT *Ida ha preparato una torta per lui.*  
 G *Ida hat für ihn einen Kuchen vorbereitet.*  
 'Ida has prepared a cake for him'.  
 b. IT *Ida è andata a Roma per lui.*  
 G *Ida ist für ihn nach Rom gefahren.*  
 'Ida has gone to Rome for him'.  
 c. IT *Ida gli ha preparato una torta.*  
 G *Ida hat ihm einen Kuchen vorbereitet.*  
 'Ida has prepared him a cake'.  
 d. IT *\*Ida gli è andata a Roma.*  
 G *\*Ida ist ihm nach Rom gefahren.*  
 Int. 'Ida has gone him to Rome'.

One interesting clue that the parallel with Chichewa is not so exotic as one might think comes from the interaction with other valency alternations as envisaged above by Haspelmath and Sims (2010):

- (26) a. IT *Oggi gli / per lui viene / è stata preparata una torta.*  
 G *Heute wird ihm / für ihn ein Kuchen vorbereitet / ist ein Kuchen vorbereitet worden.*  
 'Today a cake is / has been prepared for him'.  
 b. IT *Oggi \*gli / per lui è preparata una torta.*  
 G *Heute ist ihm / für ihn ein Kuchen vorbereitet.*  
 'A cake is prepared for him'.

Remarkably, in Italian the resultative construction cannot occur along with a benefactive clitic (26b) similarly to what has been seen above in Chichewa (10b), but only with a full prepositional phrase.<sup>15</sup> In this regard, Italian contrasts with German, in which this restriction does not occur, probably because of the absence of a true clitic pronoun comparable to Italian. It is not clear whether this speaks in favor of a different status of the benefactive with regard to the other valency alternations in terms of ordering, but is a signal of the more peripheral role played by the prepositional phrase within the construction with regard to the clitic.

Finally, before moving to the valency alternations relating to DM, it has to be observed that the causative / permissive displays a syntactic process of complex predicate formation:

- (27) IT *Bruno fa / lascia chiudere il negozio a / da Guido.*  
           Bruno makes / lets close.INF the shop to / by Guido  
       G *Bruno lässt Guido den Laden schließen.*  
           Bruno lets Guido the shop close.INF  
           ‘Bruno makes / lets Guido close the shop’

This clearly goes beyond the domain of the lexeme and of lexeme formation which is of interest here and therefore will not be further pursued below.

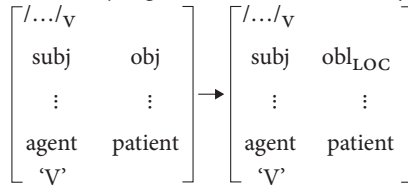
## 6.2 DM-Relating valency alternations

Let us now turn to valency changes that can be seen as giving rise to lexeme formation, thus qualifying for instances of conversion. In this regard, Siller-Runggaldier (2000, 2003, 2004) distinguishes two different types: in the type-modifying valency changes, only the way in which the arguments are coded is changed (similar to Haspelmath and Sims’ (2010) function-changing operations), while in the size-modifying changes also the number of arguments is varied, profiling Haspelmath and Sims’ event-changing operations.

As for the type-modifying changes, they typically act on nuclear arguments with the effect of their demotion to a non-nuclear range, typically a prepositional phrase, termed “objectoid” by Siller-Runggaldier (2003):

15. Despite one anonymous reviewer’s critical remark, sentences containing a resultative construction accompanied by a full prepositional phrase with a benefactive value are not difficult to find in Italian, as shown by the following example taken from the Internet: *L’ospite d’onore beve per primo, per lui è preparata la prima tazza di tè* ‘The guest of honor drinks first, the first cup of tea is prepared for him’.

- (28) a. IT *I giudici decidono il destino di Berlusconi.*  
 G *Die Richter entscheiden das Schicksal von Berlusconi*  
 'The judges decide the destiny of Berlusconi'.  
 b. IT *I giudici decidono sul destino di Berlusconi.*  
 G *Die Richter entscheiden über das Schicksal von Berlusconi*  
 'The judges decide on the destiny of Berlusconi'.



The semantic effect of the demotion consists in reducing the degree of affectedness of the objectoid with respect to the transitive structure. In this way, a sort of unergative verb comes about which is grammatically intransitive and selects the HAVE-auxiliary in the past perfect (20a). It is important to stress that this valency alternation is paralleled by cases in which the verb is overtly derived by means of a suffix, as in IT *teoria* 'theory' → *teorizzare* 'to theorize' / G *theoretisch* 'theoretic' → *theoretisieren* 'to theorize':

- (29) a. IT *Alcuni filosofi teorizzano la compenetrazione del pubblico e del privato.*  
 G *Einige Philosophen theoretisieren die Durchdringung des Öffentlichen und Privaten.*  
 'Some philosophers theorize the intersection of the public and of the private interest'.  
 b. IT *Alcuni filosofi teorizzano sulla compenetrazione del pubblico e del privato.*  
 G *Einige Philosophen theoretisieren über die Durchdringung des Öffentlichen und Privaten.*  
 'Some philosophers theorize on the intersection of the public and of the private interest'.

Moreover, similarly to the benefactive construction above, this valency alternation is compatible with clear IM alternations like the passive, but only in German in which the latter is not restricted to transitive verbs as it is in Italian (see (19) above):

- (30) a. IT *\*Domani viene deciso sul destino di Berlusconi.*  
 G *Morgen wird über das Schicksal von Berlusconi entschieden.*  
 'Tomorrow it will be decided on the destiny of Berlusconi'.  
 b. IT *\*Spesso viene teorizzato sulla compenetrazione del pubblico e del privato.*

- G *Oft wird über die Durchdringung des Öffentlichen und Privaten theoretisiert.*

'It is often theorized on the intersection of the public and of the private interest.'

In this way, an impersonal construction comes about which in Italian is only possible through the true impersonal construction containing the reflexive marker *si* and paralleled by the German *man*-construction:

- (31) IT *Spesso si teorizza sulla compenetrazione del pubblico e del privato.*

- G *Oft theoretisiert man über die Durchdringung des Öffentlichen und Privaten.*

'One often theorizes on the intersection of the public and of the private interest.'

However, in the German passive the A-Dem is observed (32c), while the Italian *si*-construction (32a) and the corresponding German impersonal construction (32b) display the A-Rad-Dem insofar as the agent is expressed as a full adjunct and not in the form of the oblique typically found in the passive:

- (32) a. IT *Spesso si teorizza \*da / da parte di alcuni filosofi su questa compenetrazione.*

- b. G *Oft theoretisiert man \*von einigen Philosophen über diese Durchdringung.*

- c. G *Oft wird von einigen Philosophen über diese Durchdringung theoretisiert.*

'One theorizes / It is theorized often on this intersection.'

One particular case of type-modifying valency-change which has been largely discussed (cf. Levin 1993: 118) is constituted by the locative alternation that consists in promoting a locative argument to a direct object while the latter is demoted to an oblique (cf. respectively Cennamo 2015 for Italian and Michaelis & Ruppenhofer 2001 for German):

- (33) a. IT *Guido carica / ha caricato fieno sul camion.*

- G *Guido lädt Heu auf den Kraftlastwagen / hat Heu auf den Kraftlastwagen geladen.*

'Guido loads / has loaded hay on the truck.'

- b. IT *Guido carica / ha caricato il camion di fieno.*

- G *Guido belädt den Kraftlastwagen mit Heu / hat den Kraftlastwagen mit Heu beladen.*

'Guido loads / has loaded the truck with hay.'

The simultaneous action of the applicative and of the patient-demotion strategy, which is clearly expressed in German by means of the applicative prefix *be-* already seen above (9d), ingenerates a meaning effect which is the mirror-image of that observed with the unergative alternation in (28b) and (29b) above. While in the latter the degree of affectedness of the object is reduced, a holistic interpretation arises in (33b) whereby the patient completely fills the location which is recategorized as object (see §3 above). Notice that these strategies need not be combined, as shown by the following pair of examples:

- (34) a. IT *La nave navigò intorno a Capo Horn.*  
           G *Das Schiff segelte um Kap Horn.*  
               the ship sailed around Cape Horn  
               ‘The ship sailed around Cape Horn’.
- b. IT *La nave circum-navigò Capo Horn.*  
           G *Das Schiff um-segelte Kap Horn.*  
               the ship around-sailed Cape Horn  
               ‘The ship sailed around Cape Horn’.

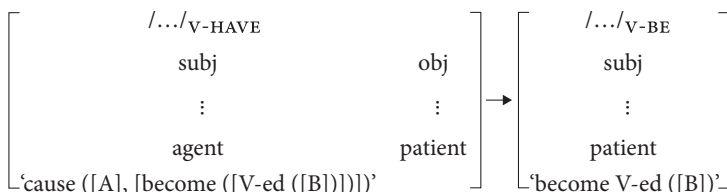
In (34b) only the applicative is observed in which the location argument is promoted to a direct object and the verb takes a prefix (cf. Munaro 1994 for a first survey on Italian).

The parallelism between valency alternations found with simplex and with derived verbs is also common with size-modifying valency-changes. They are essentially more varied than the former. In this regard, a first type is given by the anticausative-unaccusative alternation, whose label refers to the fact that in these alternations the A-Rad-Dem and the P-Prom typical of the anticausative as shown in (7e) above is combined with the selection of the BE-auxiliary typical of unaccusative verbs (20c):<sup>16</sup>

- (35) a. IT *Il sole fonde / ha fuso la neve.*  
           G *Die Sonne schmilzt den Schnee / hat den Schnee geschmolzen.*  
               ‘The sun melts / has melted the snow’.
- b. IT *La neve fonde / è fusa.*  
           G *Der Schnee schmilzt / ist geschmolzen.*  
               ‘The snow melt / is melted’.

16. The anticausative-unaccusative will be contrasted below with the anticausative-unergative alternation, in which the A-Rad-Dem and the P-Prom typical of the anticausative will be combined with the selection of the HAVE-auxiliary typical of unergative verbs.





The anticausative-unaccusative alternation is paralleled both by true conversions (IT *scuro* 'dark' → *scurire* 'to darken' / G *heil* 'safe' → *heilen* 'to heal') and by the so-called parasynthetic derivations (IT *fondo* 'bottom' → *affondare* 'to sink' / G *Eis* 'ice' → *vereisen* 'to freeze'):

- (36) a. IT *Il sole scurisce / ha scurito le pareti.*  
           'The sun darkens / has darkened the walls'.  
       G *Der Arzt heilt Inges Wunde schnell / hat Inges Wunde schnell geheilt.*  
           'The doctor heals / has healed quickly Inge's wound'.  
       b. IT *Le pareti scuriscono / sono scurite.*  
           'The walls darken / are darkened'.  
       G *Inges Wunde heilt schnell / ist schnell geheilt.*  
           'Inge's wound heals / has healed up quickly'.  
       c. IT *Schettino affonda / ha affondato la nave.*  
           'Schettino sinks / has sunk the ship'.  
           *Le navi affondano / sono affondate.*  
           'The ships sink / are sunk'.  
       d. G *Das kalte Winter vereist die Straßen / hat die Straßen vereist.*  
           'The cold winter freeze / has frozen the streets'.  
           *Die Straßen vereisen / sind vereist.*  
           'The streets freeze / are frozen'.

In the Italian grammatical tradition (cf. Iacobini 2004; Gaeta 2010b), the label ‘parasynthetic derivation’ identifies cases in which a derivative is formed through a false intermediate step. Accordingly, verbs like *affondare* and *vereisen* are considered parasynthetic because their corresponding conversions deprived of the prefix do not occur: IT \**fondare*, G \**eisen* (cf. the English verb *to enrich*, in which the prefix-less conversion does not exist: \**to rich*). In other words, a simultaneous process of prefixation and conversion has to be assumed – for German Fleischer and Barz (1995: 46) speak of “prefix conversion” – unless one considers the prefixes as entirely responsible for the derivational process (i.e. as heads of the derivatives), which is normally not the case in these languages.

As a mirror-image of the anticausative-unaccusative alternations in (35b) and (36b–d), a second type of unergative alternation can be assumed which is apparently characterized by a size-modifying effect because the object of a transitive

verb is not simply demoted to an objectoid as in (28b) but dropped giving rise to an unergative monovalent predicate:

- (37) a. IT *Il macellaio chiude / ha chiuso il negozio.*  
           G *Der Metzger schließt seinen Laden / hat seinen Laden geschlossen.*  
           ‘The butcher closes / has closed his shop’.
- b. IT *Il macellaio chiude / ha chiuso.*  
       G *Der Metzger schließt / hat geschlossen.*  
       ‘The butcher closes / has closed’.

The meaning effect of the object drop consists in the generalization of the event predicated by the verb which turns out to refer to the definitive end of the butcher’s activity. Similar alternations are quite widespread with many activity verbs like IT *mangiare* / G *essen* ‘to eat’, IT *scrivere* / G *schreiben* ‘to write’, etc., but the meaning shift is optional and has to be seen as context-bound, especially with activities that profile a strong social dimension: *Guido scrive / schreibt* ‘Guido writes, is a writer’ but \**Guido copia / kopiert* ‘int. Guido copies, is a copyist’. These alternations have been discussed as cases of ‘facultative’ or ‘free’ arguments, which might appear as a sort of *contradictio in adjecto* given that an argument is normally defined by the property of obligatoriness but in fact refers to the fact that in a sentence like *John smokes* there is always an object implicitly understood. Notice that in German these verbs can be further passivized: *Bei gesetzlichen Feiertagen wird überall geschlossen* ‘In legal holidays it is closed everywhere’. Moreover, they can be paralleled by cases of conversions (IT *impressione* ‘impression’ → *impressionare* ‘to impress’, see (38a)) and parasynthetic verbs (G *Eindruck* ‘impression’ → *beeindrucken* ‘to impress’, see (38b)):

- (38) a. IT *Bolton impressiona / ha impressionato il pubblico.*  
           ‘Bolton impresses / has impressed the public’  
           *Bolton impressiona / ha impressionato.*  
           ‘Bolton impresses / has impressed’.
- b. G *Bolton beeindruckt / hat die Zuschauer beeindruckt.*  
       ‘Bolton impresses / has impressed the public’  
       *Bolton beeindruckt / hat beeindruckt.*  
       ‘Bolton impresses / has impressed’.

Haspelmath and Sims (2010: 240) call such operation deobjective quoting an example from Tzutujil:

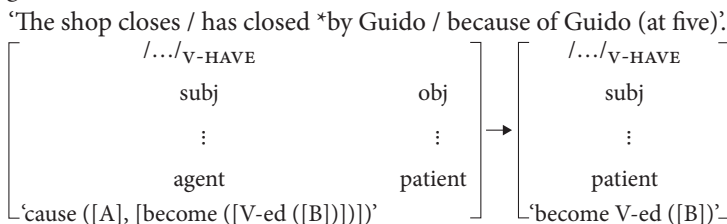
- (39) a. *x-Ø-uu-ch’ey*  
           PST-3SG.OBJ-3SG.SBJ-hit  
           ‘he hit him’

- b. *x-Ø-ch'ey-oon-i*  
 PST-3SG.SBJ-hit-DEOBJ-PST  
 'he was hitting'

As they observe, this operation might resemble the mirror-image of the anticausative-unaccusative alternation insofar as the patient is completely demoted: (39b) is an intransitive verb in all respects as it displays the suffix *-i* in addition to the prefix *x-* in the past tense (cf. *x-eel-i* 'he went out') contrasting with *x-uuch'ey* in (39a) where there is no *-i*, and it has only a single person-number prefix for the subject. However, it is difficult to conceive a hitting event and further similar activities as occurring without a patient, which is also the reason usually invoked for justifying the concept of facultative argument mentioned above. For this reason, such unergative alternations cannot be considered on a par with anticausative-unaccusative alternations as instances of an event-changing operation, but at most as a sort of function-changing operation driven by a number of complex factors which probably go beyond the reach of the IM / DM continuum at stake here.

Finally, an "anticausative-unergative" alternation can be assumed for those cases in which the A-Rad-Dem and the P-Prom typical of the anticausative (7e) is accompanied by the selection of the HAVE-auxiliary in the past perfect typical of the unergative verbs (20a):<sup>17</sup>

- (40) IT *Il negozio chiude / ha chiuso \*da Guido / a causa di Guido (alle cinque).*  
 G *Der Laden schließt / hat \*von Guido / wegen Guido (um fünf Uhr)*  
*geschlossen.*



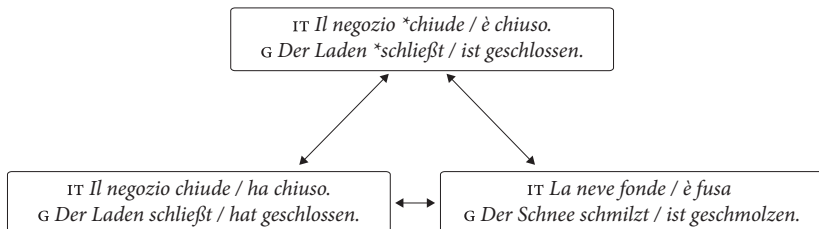
17. One anonymous reviewer suggests to treat the example in (40) in terms of the deobjective unergative alternation discussed in (37) above, by virtue of a possible meaning extension whereby *shop* is interpreted as the persons working in it. The problem with this view is twofold. First, one finds cases like IT *Il portone chiude alle cinque* / G *Das Tor schließt um fünf Uhr* 'The gate closes at five', in which *gate* cannot be really interpreted as the person closing it. Second, and crucially, while in the deobjective unergative alternation an object can always be intended as understood: IT *Il macellaio chiude (il negozio)* / G *Der Metzger schließt (seinen Laden)* 'The butcher closes (his shop)', this is not possible with the example in (40): IT *\*Il negozio / \*La macelleria chiude (il negozio)* / G *\*Der Laden / \*Die Metzgerei schließt (den Laden)* 'The shop / butchery closes at five', which can straightforwardly be explained by the P-Prom of the anticausative alternation.

Parallels are found in conversions (IT *stagione* 'season' → *stagionare* 'to age' / G *Lager* 'store' → *lagern* 'to store, age') and suffixations (IT *burro* 'butter' → *burrificare* 'to butter-ify', G *Kristall* 'crystal' → *kristallisieren* 'to crystallize'):

- (41) a. IT *I contadini stagionano / hanno stagionato il formaggio almeno per un anno.*  
 G *Die Bauern lagern den Käse mindestens ein Jahr / haben den Käse mindestens ein Jahr gelagert.*  
 'The farmers age / have aged the cheese at least for one year'.  
 b. IT *Il formaggio stagiona / ha stagionato almeno per un anno.*  
 G *Der Käse lagert mindestens ein Jahr / hat mindestens ein Jahr gelagert.*  
 'The cheese ages / has aged at least for one year'.  
 c. IT *Gianni burrifica / ha burrificato la panna acida a 30 gradi.*  
 'Gianni butterifies / has butterified the cream at 30 degree'.  
*La panna acida burrifica / ha burrificato a 30 gradi.*  
 'The cream butterifies / has butterified at 30 degree'.  
 d. G *Unter ständigem Rühren hat Hans den Honig nach längerer Zeit kristallisiert.*  
 'Stirring constantly Hans has crystallized the honey after a certain time'.  
*Unter ständigem Rühren hat der Honig nach längerer Zeit kristallisiert.*  
 'Stirring constantly the honey has crystallized after a certain time'.

This anticausative-unergative alternation in (40) bumps into the resultative alternation of (17b) and the anticausative-unaccusative alternation of (35) insofar as they all stand in a trilateral opposition. Although the three cases display the P-Prom, the resultative and the anticausative-unergative are clearly opposed by means of the different auxiliary in the past perfect, while the resultative profiles a diathetic distinction in contrast to the anticausative-unaccusative alternation inasmuch as it does not admit the present: IT *Il negozio \*chiude / è chiuso* / G *Der Laden \*schließt / ist geschlossen* 'the door \*closes / is closed':

(42)



In other words, the resultative alternation can be considered an instance of IM since no lexeme formation takes place as was discussed in §2 above and in so far it clusters paradigmatically with the passive construction, which accounts for the absence of the present form. On the other hand, the present form is linked to the anticausative-unergative alternation in which it clusters paradigmatically with the HAVE-perfect as shown in (40) and therefore qualifies for an instance of DM since it gives rise to lexeme formation. In addition, notice that while both the resultative alternation and the anticausative-unergative alternation display the A-Rad-Dem (cf. respectively (18) and (40)), only the latter is compatible with adjuncts focusing on the processual dimension of the event (43a):

- (43) a. IT *Il negozio \*è / ha chiuso dopo una serie di rapine.*  
 G *Der Laden \*ist / hat nach einer Serie von Raubüberfällen geschlossen.*  
 ‘The shop \*is / has closed after a series of robberies’.
- b. IT *Il negozio è / \*ha chiuso il lunedì.*  
 G *Der Laden ist / \*hat montags geschlossen.*  
 ‘The shop is / \*has closed on Mondays’.

This stresses the peculiar stative value of the resultative as opposed to the anticausative-unergative (and to the passive: IT *Il negozio viene chiuso dopo una serie di rapine* / G *Der Laden wird nach einer Serie von Raubüberfällen geschlossen* ‘The shop is closed after a series of robberies’), whereas the latter is expectedly incompatible with adjuncts requiring a stative interpretation (43b) and the passive is only possible in a habitual interpretation: IT *Il negozio viene chiuso di solito il lunedì* / G *Der Laden wird normalerweise montags geschlossen* ‘The shop is usually closed on Mondays’.

Also both anticausative alternations are clearly opposed only in the past perfect while the present is ambiguous: it is the auxiliary choice that profiles either of the alternations. On the other hand, the restriction on the usage of the present tense clearly distinguishes the resultative from the anticausative-unaccusative which, like the other two constructions, also displays the A-Rad-Dem: IT *La neve fonde (\*dal sole / a causa del sole)* / G *Der Schnee schmilzt (\*von der Sonne / wegen der Sonne)* ‘The snow melts (\*by the sun / because of the sun)’.

It has to be stressed that the resultative (along with the reflexive-anticausative) is far more entrenched than the other two alternations as shown by the wide range of predicates with which it is compatible, and for this reason it has traditionally been considered on a par with the passive as an instance of IM. In this regard, notice that both anticausative alternations can also be paralleled by the reflexive-anticausative:

- (44) a. IT *Per mezzo dell'intensa esposizione al sole i pneumatici si fondono / si sono fusi nel ghiaccio.*  
 G *Durch die intensive Sonneneinstrahlung schmelzen sich die Reifen ins Eis / haben sich die Reifen ins Eis geschmolzen.*  
 'Through the intensive solar irradiation the tires melt / have melt (lit. itself) in the ice'.
- b. IT *L'imposta della finestra si chiude / si è chiusa dopo lo sblocco.*  
 G *Der Fensterladen schließt sich nach der Freigabe / hat sich nach der Freigabe geschlossen.*  
 'The window shutter closes / has closed (lit. itself) after the release'.
- c. IT *Il formaggio si stagiona / si è stagionato per un anno.*  
 'The cheese ages / has aged (lit. itself) for one year'.  
 G *Der Käse lagert sich am besten auf einem Holzbrettli / hat sich am besten auf einem Holzbrettli gelagert.*  
 'The cheese ages / has aged (lit. itself) best on a wooden board'.
- d. IT *La panna acida si burrifica / si è burrificata a 30 gradi.*  
 'The cream butterifies / has butterified (lit. itself) at 30 degree'.  
 G *Der Honig kristallisiert sich sehr schnell / hat sich sehr schnell kristallisiert.*  
 'The honey crystallizes / has crystallized (lit. itself) very quickly'.

Therefore, one might tentatively conclude that, given that the verbs displaying an anticausative alternation of both the unergative and the unaccusative type are a subset of the verb underlying the resultative and the reflexive-anticausative alternation, the former two alternations qualify for DM in contrast with the latter in which no lexeme-formation takes place. This conclusion is also supported by the fact that one and the same predicate can enter both anticausative alternations, as shown by IT *bruciare* 'to burn' and G *starten* 'to start':<sup>18</sup>

- (45) a. IT *Il nemico brucia / ha bruciato l'intero paese.*  
 'The enemy burns / has burned the whole country'.  
 IT *L'intero paese brucia \*dal / a causa del nemico.*  
 'The whole country burns \*by / because of ennemy'.  
 IT *L'intero paese ha / è bruciato \*dal / a causa del nemico.*  
 'The whole country has burned \*by / because of ennemy'.
- b. G *Die Sängerin startet mit Verspätung die Tournee / hat mit Verspätung die Tournee gestartet.*  
 'The songstress is starting / has started the tour with delay'.  
 G *Die Tournee startet mit Verspätung \*von / wegen der Sängerin.*  
 'The tour is starting with delay \*by / because of the songstress'.

18. I am grateful to one anonymous reviewer for drawing my attention to this point.

- G *Die Tournee hat / ist mit Verspätung \*von / wegen der Sängerin gestartet.*  
 ‘The tour has started with delay \*by / because of the songstress’

Independently of the semantic nuances between the two anticausative types (see Cennamo & Jezek 2011 on Italian), the relevant point for our discussion is that the present form can be paradigmatically associated either with the unaccusative or with the unergative type, in contrast with the resultative construction seen in (42) above which stands in a diathetic opposition to the present form.

Finally, size-modifying operations are not necessarily of a reductive type. The number of arguments can also be increased for instance with the addition of an object, as in the “anti-unergative” alternation whereby an unergative verb is transitivity:

- (46) a. IT *Guido lavora (alle Seychelles).*  
 ‘Guido works on the Seychelles Islands’  
 G *Die Schneiderin arbeitet (für die Königin nach Maß).*  
 ‘The tailor works for the queen to measure’
- b. IT *Guido lavora il corallo alle Seychelles.*  
 ‘Guido works the coral on the Seychelles Islands’  
 G *Die Schneiderin arbeitet für die Königin das Kostüm nach Maß.*  
 ‘The tailor makes the suit for the queen to measure’
- |             |   |                  |         |        |
|-------------|---|------------------|---------|--------|
| /.../V      |   | /.../V           |         | /.../V |
| subj        |   | subj             | obj     |        |
| ⋮           |   | ⋮                | ⋮       |        |
| agent       |   | agent            | patient |        |
| [‘V ([A])’] | → | [‘V ([A], [B])’] |         |        |
- c. IT *Il corallo viene lavorato alle Seychelles.*  
 ‘The coral is worked on the Seychelles Islands’  
 G *Das Kostüm wird für die Königin nach Maß gearbeitet.*  
 ‘The suit is made for the queen to measure’

Notice the difference with regard to the deobjective unergative alternation seen in (37) above: there the object is only apparently dropped, which also accounts for the directionality of the derivation. Here the intransitive variant is basic because it cannot be taken to refer – also implicitly – to any object.

In a parallel way, an “anti-unaccusative” alternation can be assumed for those cases of unaccusative verbs in which the addition of an object is accompanied by the selection of the HAVE-auxiliary:

- (47) a. IT *Ida siede / è seduta sul divano.*  
 'Ida sits / is seated on the couch.'  
*Ida siede / ha seduto suo figlio sul divano.*  
 'Ida seats / has seated her child on the couch.'
- b. G *Guido fährt nach München / ist nach München gefahren.*  
 'Guido drives / has driven to Munich.'  
 G *Guido fährt seine Frau nach München / hat seine Frau nach München gefahren.*  
 'Guido drives / has driven his wife to Munich.'
- |               |   |                                    |
|---------------|---|------------------------------------|
| [ /.../V-BE ] | → | [ /.../V-HAVE ]                    |
| subj          |   | subj                      obj      |
| ⋮             |   | ⋮                              ⋮   |
| agent         |   | agent                      patient |
| [ V ([A]) ]   |   | [ 'cause ([B], [V ([A)]) ]         |

Notice that both in Italian and in German the anti-unergative (46c) and the anti-unaccusative (48a) alternations tolerate the application of the passive, while only in German the unaccusative base verb can also be passivized (48b) (see (19) above):

- (48) a. IT *Giorgio viene seduto sul divano da sua madre.*  
 'Giorgio is seated on the couch by his mother.'
- b. G *Nach München wird zu schnell gefahren.*  
 'To Munich it is driven too fast.'
- G *Marie wird von ihrem Mann nach München gefahren.*  
 'Marie is driven to Munich by her husband.'

It is also noteworthy that such anti-unaccusative and anti-unergative alternations, with their argument-increasing effect, are probably the valency alternations which are closest to the DM pole. In fact, they correspond to explicit DM procedures found in the two languages, as for instance the German applicative seen in (9d) above, insofar as they display a semantic effect of causation as pointed out by Rainer (1993) above. This is largely encoded both in Italian and in German by means of conversion (IT *stalla* 'stable' → *stallare* 'to stable' / G *Land* 'land' → *landen* 'to land') or parasyntesis (IT *strada* 'street' → *instradare* 'to route' / G *Tisch* 'table' → *aufstischen* 'to dish up') and suffixation (IT *container* 'container' → *containerizzare* 'to containerize' / G *Magazin* 'store' → *magazinieren* 'to store') besides the periphrastic strategy mentioned in (27) above.



### 7. Conclusion

To sum up, the typology of valency alternations in Italian and German is surely larger than the short picture provided here, especially with regard to the type of expansions which a verb can display. However, common patterns have been observed which are also well distributed along the IM / DM continuum in a fairly homogeneous way. The following table lists the different alternation types discussed throughout the paper, making clear reference to the overt word-formation analogues (Conv = conversion, Par = parasynthetic derivative, Pref = prefixation, Suf = suffixation) as well as to the property of auxiliary selection illustrated above by means of the corresponding examples:

**Table 1.** Valency alternations in Italian and German

	Alternation type	WF analogue	AUX-change
	<b>Function-changing operations</b>		
i.	passive (17a) (26a) (46c) (48)		BE <sub>IT</sub> / COME <sub>IT</sub> / BECOME <sub>G</sub>
	<b>Event-changing operations</b>		
ii.	reflexive (17c) (21a)	?Pref (23)	BE <sub>IT</sub>
iii.	reflexive-anticausative (17d) (21d) (44)	?Pref (22)	BE <sub>IT</sub>
iv.	resultative (17b) (18) (26b) (43)		BE <sub>IT/G</sub>
v.	benefactive (25–26)		
vi.	(causative / permissive) (27)		
	<i>Type-modifying changes</i>		
vii.	unergative: objectoid-formation (28b)	Suf (29–32)	
viii.	locative (33b)	Pref (34b)	
	<i>Size-modifying changes</i>		
ix.	unergative: deobjective (37b)	Conv (38a) / Par (38b)	
x.	anticausative-unaccusative (35b) (45)	Conv (36b) / Par (36c–d)	BE <sub>IT/G</sub>
xi.	anticausative-unergative (40) (43) (45)	Conv (41a–b) / Suf (41c–d)	
xii.	anti-unergative (46b)	Conv / Par / Pref (9d) / Suf	
xiii.	anti-unaccusative (47)	Conv / Par / Pref (9d) / Suf	HAVE <sub>IT/G</sub>

Although very little has been said on the varying degrees of their productivity, this is a crucial property which is at the heart of a strictly morphological analysis, as

pointed out by Haspelmath and Sims (2010: 245): “[S]uch valency-changing operations may vary in productivity, from sporadic to extremely productive, much like other morphological processes”. It remains a desideratum for the future research to assess this question with regard to the two specific languages at stake here (see Lenci 2012 for a first attempt based on Italian corpus-data). In this regard, the typology exemplified above offers a good starting point for investigating the question from a broad Lexical(ist) perspective which seriously takes into consideration the onomasiological aspect lurking behind any word-formation process, as briefly discussed in §5 above.

One further advantage of this approach relates to the contrastive analysis carried out above which testifies of the feasibility of a systematic cross-linguistic analysis, especially for languages in which similar processes are overtly coded. In this regard, we could observe above the nice parallelism between the valency alternations found in simplex verbs and in specific word-formation patterns. Even if it might be objected that in some cases the idea of a conversion for accounting a valency alternation sounds odd as is the case for what we have called here (deobjective) unergative alternation (37b), several other cases have been found in which a strict parallel with clear-cut word-formation processes is straightforward, as for instance the anti-unaccusative alternation of (47). This corresponds to Rainer’s (1993) observation that in the presence of an overt correspondent the parallel with word-formation is adequate. Many of such phenomena seem to be lexical, and in this sense closer to DM, although sporadic formations raise severe problems as for the directionality of the patterns investigated. This brings us back to the issue of productivity which is crucial for providing an empirically well-founded answer to the question.

Finally, this contrastive analysis has shown that several different types of valency alternations can be observed which range from patterns clearly belonging to the IM pole such as the passive, the resultative, the reflexive (partially including the anticausative-reflexive) to patterns of a lexical nature which can be treated on a par with other overt word-formation patterns. For the latter, the term conversion has been suggested, which seems to be adequate in the light of the broader definition suggested by Thornton (2004) including also cases in which no word-class change takes place. Given that the alternation types discussed above can be either of a reductive or of an expansive nature, it seems appropriate to speak of a conversion with a basic modifying value in which the base undergoes a further sub-classification usually in hyponymic terms. This resembles the cases of feminine formation discussed in (16a) above, in which the change of word properties was taken to be an important criterion for distinguishing between core and peripheral cases of conversion. In our case, the change of word properties crucially refers to the selection of the auxiliary, which characterizes anticausative alternations both of

the unaccusative and of the unergative type as well as the anti-unaccusative alternations. They can be considered to form the core of these modifying conversions. In addition, the change of the properties qualifying the semantic roles involved in the construction is also relevant for understanding the modifying value of the conversion. Besides the two anticausative alternations, it is important to stress the value of the type in which an object is demoted to a far less affected “objectoid” (cf. Siller-Runggaldier 2003). These and the other type of unergative alternations in which a free argument occurs can be considered more peripheral cases.

The contrastive perspective has illuminated further relevant structural differences between the two languages as for instance those due to the full-fledged system of clitic pronouns of Italian in contrast with German in the case of the resultative construction interacting with the benefactive (26b) or those regarding the wider application of the passive in German with respect to Italian (see (19), (30) and (32) above). It has to be stressed that this approach based on a structural comparison of functionally similar constructions appears highly promising and in fact has recently opened a new research avenue for Contrastive Linguistics after the so-called “typological turn” (cf. König 2012; Gaeta 2014).

A final word has to be added regarding the hotly debated issue of the syntactic or lexical status of the valency alternations and more in general of the argument structure. As mentioned at the outset, Müller and Wechsler (2014) survey the different approaches to the question and definitely plead for a Lexical(ist) treatment on the basis of a number of arguments, among which an important role is played by the relevance of the argument structure for DM. This can be easily shown by suffixes like IT *-bile* / G *-bar* ‘-able’ which normally and productively select only transitive verbs, e.g. IT *mangiare* / G *essen* ‘to eat’ → IT *mangiabile* / G *essbar* ‘edible’, etc. It is my hope that this paper has contributed with empirical substance to support the Lexical(ist) approach by showing that a common morphological operation such as conversion can account for at least those valency alternations which come close to DM. The others can be lined up along the IM / DM continuum on a par with other inflectional operations such as for instance those relating to tense / aspect as in the case of the trilateral opposition resultative / perfect / passive hinted at in (42) above. On the other hand, a purely Lexical(ist) approach is probably not sufficient to account for any kind of valency alternation and a mixed view has rather to be adopted in which verb-specific (lexical) constructions and verb-class specific (syntactic) constructions coexist (cf. Croft 2003). Although this issue has not been discussed in the paper, it should never be forgotten. And this not so much because any morphological pattern can in principle be represented in terms of constructions (as pled for by supporters of Constructionist approaches) or can be freely manipulated within syntactic trees (as argued for by Neo-Constructionist frameworks). Instead, a parallel access via either the lexical content of the verb or

the syntactic pattern in which it occurs is necessary in order to account for the fact that “multiple analyses of the form-function mapping may be available to the speaker” and – varying across the language community – they “can result in variation and change across time” (Croft 2003: 66). For this reason, the possibility of multiple analyses should be accommodated in our analysis of valency alternations.

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